



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/995,258      | 11/27/2001  | Fabrice Marinet      | 00R027254350        | 1339             |

27975 7590 02/03/2006

ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST P.A.  
1401 CITRUS CENTER 255 SOUTH ORANGE AVENUE  
P.O. BOX 3791  
ORLANDO, FL 32802-3791

EXAMINER

REVAK, CHRISTOPHER A

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2131

DATE MAILED: 02/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 09/995,258             | MARINET ET AL.      |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Christopher A. Revak   | 2131                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 17-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 33-41 is/are allowed.
- 6) ☒ Claim(s) 17-32 and 42-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>see attached</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed November 27, 2001 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the applicant has not provided the references. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing elements will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

### ***Priority***

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 17-32 and 42-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Schulz, U.S. Patent 4,905,176.

As per claim 17, Schulz teaches of a random signal generator comprising an electronic noise source comprising a folded MOS transistor having a drain source current with a random component and a circuit for generating a digital signal based upon the random component (col. 4, lines 4-53).

As per claims 18,26 and 43, it is disclosed by Schulz that the folded MOS transistor comprises a drain and a source with a channel defined there between, with the channel being S-shaped and having a size that is at a resolution limit based upon manufacturing technology (col. 4, lines 30-44).

As per claims 19,27, and 44, it is taught by Schulz that the folded MOS transistor comprises a drain and a source with a channel defined there between, with the channel being zigzag-shaped and having a size that is at a resolution limit based upon manufacturing technology (col. 4, lines 30-44).

As per claims 20,28, and 45, Schulz discloses of a reference transistor connected to the folded MOS transistor, the reference transistor receiving gate voltage and a bias current equal to a gate voltage and a bias current applied to the folded MOS transistor for causing the drain-source current therefrom to randomly vary (col. 4, lines 4-53).

As per claims 21,29, and 46, Schulz teaches of a comparison circuit for comparing the randomly varying drain-source current to a detection circuit (col. 4, lines 30-44 and col. 6, lines 14-19).

As per claims 22,30, and 47, it is disclosed by Schulz that the comparison circuit determines a difference between the randomly varying drain-source current and the detection circuit and further comprising an amplifier for amplifying the difference (col. 4, lines 4-53).

As per claims 23,31, and 48, it is taught by Schulz that the circuit comprises a sampling circuit for sampling the digital signal for providing a random digital word (col. 4, lines 4-53).

As per claims 24,32, and 49, Schulz discloses of an integrating circuit for maintaining a gate voltage on the folded MOS transistor within a desired range of values (col. 4, lines 4-53).

As per claim 25, the teachings of Schulz disclose of a random signal generator circuit that comprises a plurality of random signal generators, each random signal generator comprising an electronic noise source comprising a folded MOS transistor having a drain-source current with a random component and a circuit for generating a digital signal based upon the random component. A logic circuit connected to the plurality of random signal generators for combining the digital signals for generating a digital number (col. 4, lines 4-53).

As per claim 42, the disclosure of Schulz recites of a method for generating a random number from an electronic noise source. A folded MOS transistor is provided having a drain-source current with a random component and a random digital signal is generated based upon the random component (col. 4, lines 4-53).

***Allowable Subject Matter***

5. Claims 33-41 are allowed.
6. The following is a statement of reasons for the indication of allowable subject matter:

It was not found to be taught in the prior art of a random signal generator circuit for generating a random digital number comprising an electronic noise source comprising a folded MOS transistor having a drain-source current with a random component and a logic circuit for generating the random digital number based on the random component. The generated random digital number is received and transformed based upon an authentication function that uses a secret key, the processor compares the result of the authentication function to a result of an authentication function provided by an external terminal in response to the random digital number being sent and authorizes a transaction with the external terminal if the comparison is a match.


***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Revak whose telephone number is 571-272-3794. The examiner can normally be reached on Monday-Friday, 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2131

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Christopher Revak  
Primary Examiner  
AU 2131

1/31/06

CR  
  
January 31, 2006